

Submission to the Independent Scientific Panel Inquiry into Hydraulic Fracture Stimulation in Western Australia 2017

To the Members of the Scientific Panel,

I am writing this submission as a physicist and a member of the community. I am concerned about the impact and risks associated with Hydraulic Fracture Stimulation (Fracking). After researching this matter from a scientific point of view I have come to the conclusion that Fracking impacts adversely on health, the environment, air, water, land, agriculture, communities and the economy.

The New York based health organization, the Concerned Health Professionals of New York, has compiled the Compendium of Scientific, Medical, and Media Findings Demonstrating Risks and Harms of Fracking (*) - a fully referenced compilation of the evidence for the risks and harms of fracking that brings together findings from the scientific and medical literature, government and industry reports, and journalistic investigation.

The latest edition of this compendium highlighted the following emerging trends:

- Growing evidence shows that regulations are simply not capable of preventing harm.
- Fracking threatens drinking water.
- Drilling and fracking emissions contribute to toxic air pollution and smog (ground-level ozone) at levels known to have health impacts.
- Public health problems associated with drilling and fracking, including reproductive impacts and occupational health and safety problems, are increasingly well documented.
- Natural gas is a bigger threat to the climate than previously believed.
- Earthquakes are a consequence of drilling and fracking-related activities in many locations.
- Fracking infrastructure poses serious potential exposure risks to those living near it.
- Drilling and fracking activities can bring naturally occurring radioactive materials to the surface.
- The economic instabilities of fracking further exacerbate public health risks.
- Fracking raises issues of environmental justice.
- Health care professionals are increasingly calling for bans or moratoria until the full range of potential health hazards from fracking are understood.

Many studies (numbers in brackets) are documented in the following categories:

- Air pollution (55)
- Water contamination (108)
- Inherent engineering problems that worsen with time (13)
- Radioactive releases (16)
- Occupational health and safety hazards (44)
- Public health effects, measured directly (23)
- Noise pollution, light pollution, and stress (12)
- Earthquakes and seismic activity (60)
- Abandoned and active oil and natural gas wells as pathways for gas and fluid migration (22)
- Flood risks (9)
- Threats to agriculture and soil quality (20)
- Threats to the climate system (56)
- Threats from fracking infrastructure (71)
- Inaccurate job claims, increased crime rates, threats to property value and mortgages, and local government burden (64)
- Inflated estimates of oil and gas reserves and profitability (23)
- Disclosure of serious risks to investors (Information from industry returns to Government)
- Medical and scientific calls for more study and more transparency (36)

Based on this scientific evidence, the Concerned Health Professionals of NY and Physicians for Social Responsibility concluded:

‘Findings to date from scientific, medical, and journalistic investigations combine to demonstrate that fracking poses significant threats to air, water, health, public safety, climate stability, seismic stability, community cohesion, and long-term economic vitality. Emerging data from a rapidly expanding body of evidence continue to reveal a plethora of recurring problems and harms that cannot be averted or cannot be sufficiently averted through regulatory frameworks. There is no evidence that fracking can operate without threatening public health directly or without imperilling climate stability upon which public health depends. Industry swore that its cracking rock technology was safe and proven, but science now tells a different story. And in the words of a new commentary about fracking in the American Journal of Public Health: Mounting empirical evidence shows harm to the environment and to human health ... and we have no idea what the long-term effects might be.... Ignoring the body of evidence, to us, is not a viable option anymore.’

In conclusion, the weight of the scientific evidence shows that Fracking poses a threat to health, the environment, air, water, land, agriculture, communities and the economy. I therefore recommend that Fracking be permanently banned in Western Australia.

Sincerely,

Sofia Vaz Pinto

19/03/2018

(*) - Concerned Health Professionals of New York & Physicians for Social Responsibility. (2016, November 17). Compendium of scientific, medical, and media findings demonstrating risks and harms of fracking (unconventional gas and oil extraction) (4th ed.).

<http://concernedhealthny.org/compendium/> Available at:
<http://www.psr.org/assets/pdfs/fracking-compendium-4.pdf>

Concerned Health Professionals of New York & Physicians for Social Responsibility. (2015, October 14). Compendium of scientific, medical, and media findings demonstrating risks and harms of fracking (unconventional gas and oil extraction) (3rd ed.).

<http://concernedhealthny.org/compendium/> Available at:
<http://www.psr.org/assets/pdfs/fracking-compendium-4.pdf>